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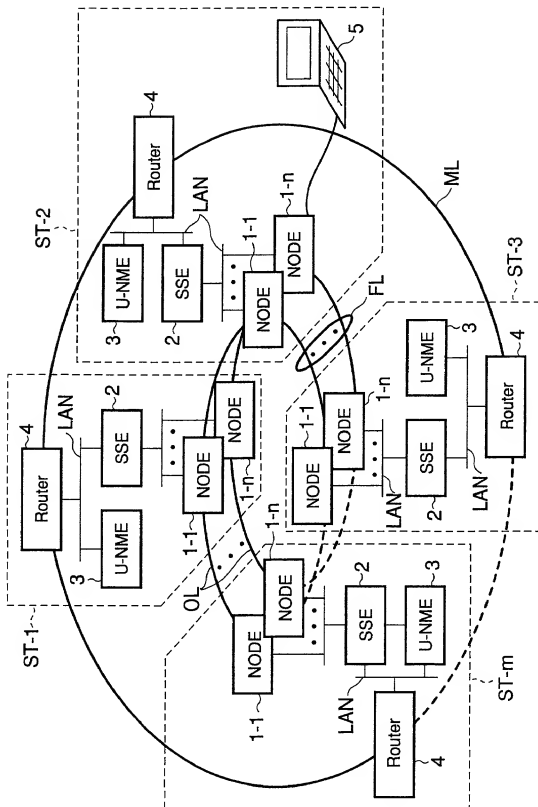


FIG. 1

102207 30623660

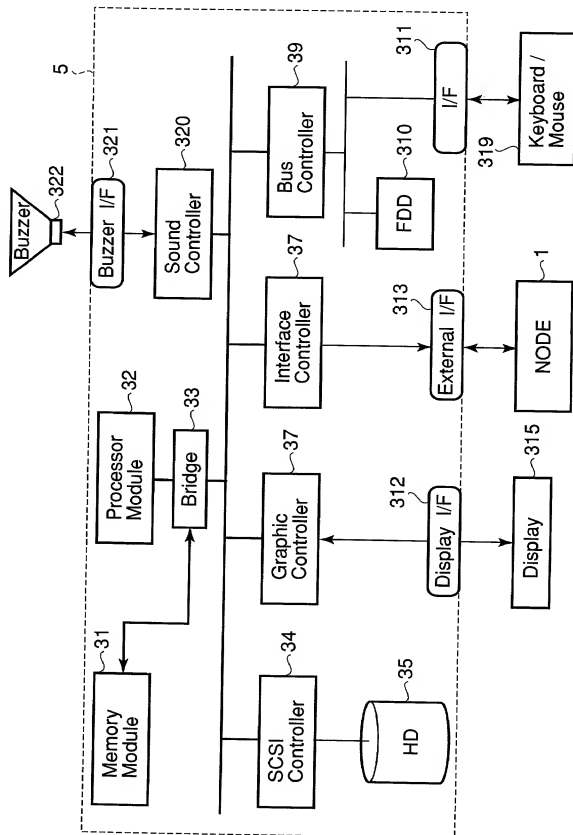


FIG.2

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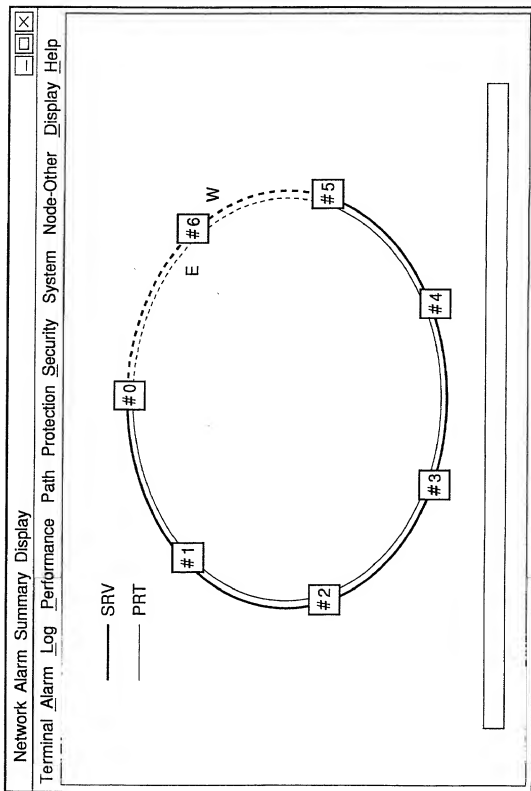


FIG.3

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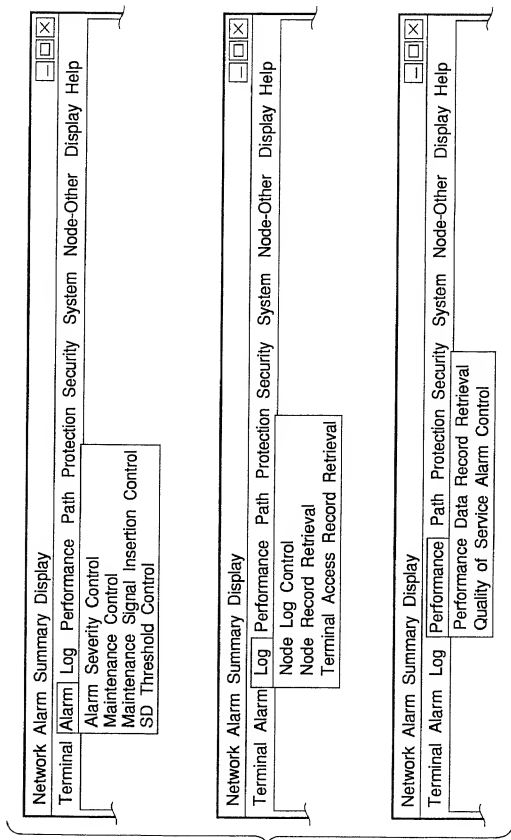


FIG. 4

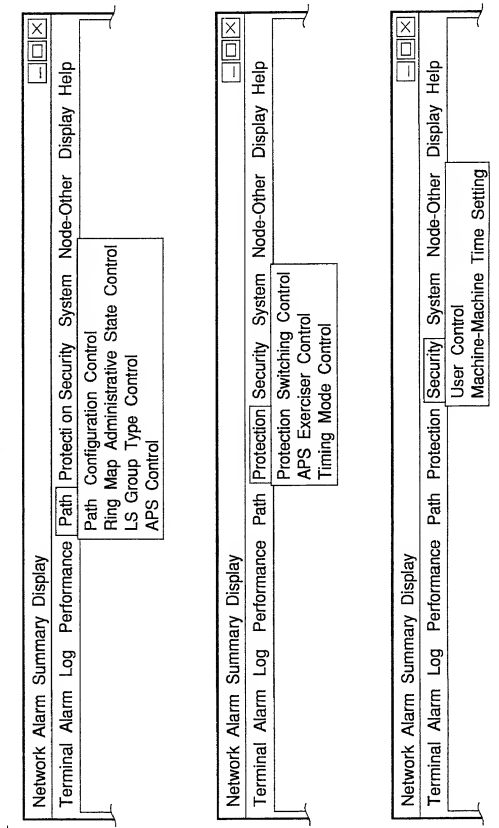


FIG. 5

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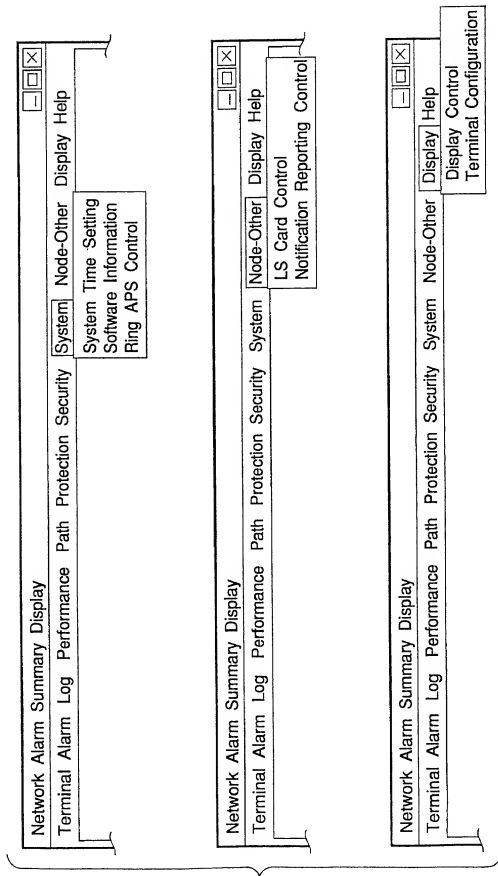


FIG. 6

Node Alarm Summary Display

Node: #0

Quit

MAINT

FAN	
COM	
HS	
LS #1	LS #3
LS #2	LS #4
FUSE1	FUSE2

Shelf ##	Card ##	Probable Cause ##	Perceived Severity ##

FIG. 7

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Shelf Alarm Summary Display

Node: Shelf: Quit

F
A
N

Card	Probable Cause	Perceived Severity

FIG. 8

Shelf Alarm Summary Display

Node: Shelf: Quit

PU3
1

PU3
2

PU3
3

RLY
IMF

DIS
1

DIS
2

MAIN
CONT

DATA

MSG
CONT

QINF

EDCM

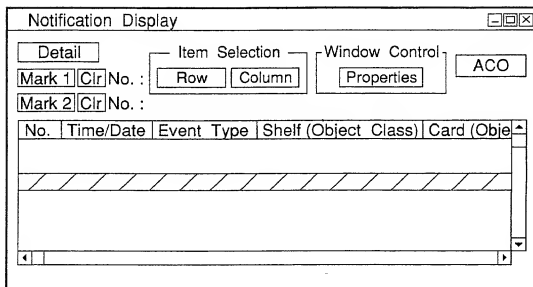
ECCR

Card	Probable Cause	Perceived Severity
####	####	####

FIG. 9

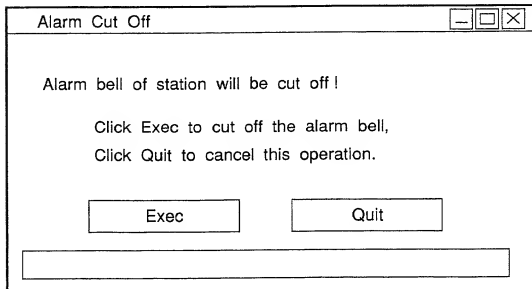
102201 8052350

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The "Notification Display" window contains several interactive elements. At the top, there are three tabs: "Detail", "Item Selection", and "Window Control". Below the "Detail" tab, there are two rows of input fields: "Mark 1 | Clr | No. :" and "Mark 2 | Clr | No. :". To the right of these fields are two buttons labeled "Row" and "Column". Under the "Item Selection" tab, there is a "Properties" button. Under the "Window Control" tab, there is an "ACO" button. Below these controls is a table with the following headers: "No.", "Time/Date", "Event", "Type", "Shelf (Object Class)", and "Card (Obj)". The table has a scroll bar on the right and a horizontal line with diagonal hatching across its middle.

FIG. 10



The "Alarm Cut Off" window displays a message: "Alarm bell of station will be cut off !". Below the message, there are two instructions: "Click Exec to cut off the alarm bell," and "Click Quit to cancel this operation." At the bottom of the window, there are two buttons labeled "Exec" and "Quit".

FIG. 11

00932903.102204

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Item Selection (Row) [X]

Event Type	Shelf	Card
<input checked="" type="checkbox"/> Communications Alarm	<input type="checkbox"/> COM	<div><div></div><div>All Set</div><div>All Clear</div></div>
<input checked="" type="checkbox"/> Environmental Alarm	<input type="checkbox"/> FAN	
<input type="checkbox"/> Equipment Alarm	<input type="checkbox"/> FUSE1	
<input type="checkbox"/> Object Creation	<input type="checkbox"/> FUSE2	
<input type="checkbox"/> Object Deletion	<input checked="" type="checkbox"/> HS	
<input type="checkbox"/> Protection Switch Reporting	<input checked="" type="checkbox"/> LS #1	
<input type="checkbox"/> Quality of Service Alarm	<input checked="" type="checkbox"/> LS #2	
<input checked="" type="checkbox"/> Security Alarm	<input checked="" type="checkbox"/> LS #3	
<input type="checkbox"/> State Change	<input checked="" type="checkbox"/> LS #4	

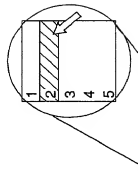
OK Cancel

FIG. 12

FIG. 12

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Item Selection (Column)

Location : <input type="checkbox"/>	Location : <input type="checkbox"/>	Location : <input type="checkbox"/>	Location : <input type="checkbox"/>	Location : <input type="checkbox"/>
Common Item <input checked="" type="checkbox"/> Time/Date <input checked="" type="checkbox"/> Event Type <input checked="" type="checkbox"/> Shelf (Object Class) <input checked="" type="checkbox"/> Card (Object Instance) <input checked="" type="checkbox"/> Notification ID	Alarm <input type="checkbox"/> Probable Cause <input type="checkbox"/> Perceived Severity <input type="checkbox"/> Specific Problems <input type="checkbox"/> Triggered Threshold <input type="checkbox"/> Observed Value <input type="checkbox"/> Additional Text	State Change <input type="checkbox"/> Attribute ID	Protection Switch Rep <input type="checkbox"/> Protecting Unit <input type="checkbox"/> Protection Direction <input type="checkbox"/> Additional Text	Security Alarm <input type="checkbox"/> Security Alarm Cause <input type="checkbox"/> Security Alarm Severity <input type="checkbox"/> Security Alarm Detector <input type="checkbox"/> Service User <input type="checkbox"/> Service Provider

OK Cancel

FIG. 13

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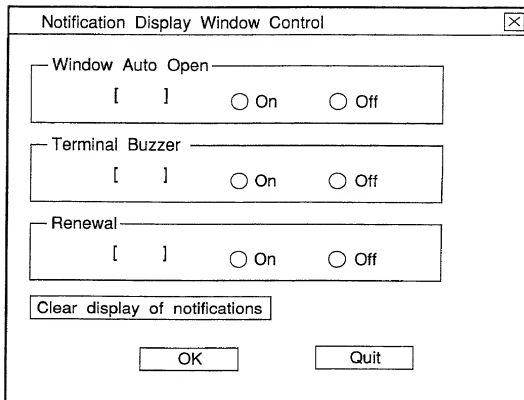


FIG. 14

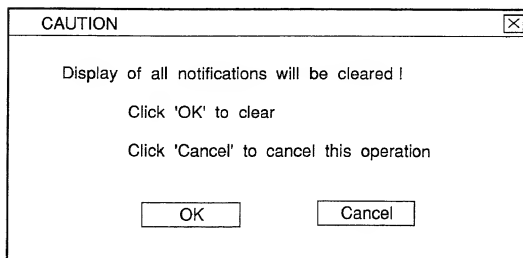


FIG. 15

Notification Detailed Display

No. :
Event Time :
Event Type :
Shelf (Object Class) :
Card (Object Instance) :
Additional Text :

Quit

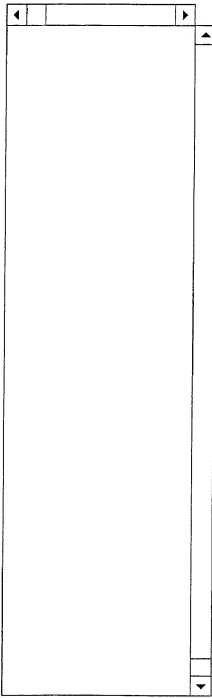


FIG. 16

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Notification Detailed Display

No. : 0125
Event Time : 1997-10-30 12:55:30
Event Type : State Change
Shelf (Object Class) : sdhNE
Card (Object Instance) : Node
Additional Text :

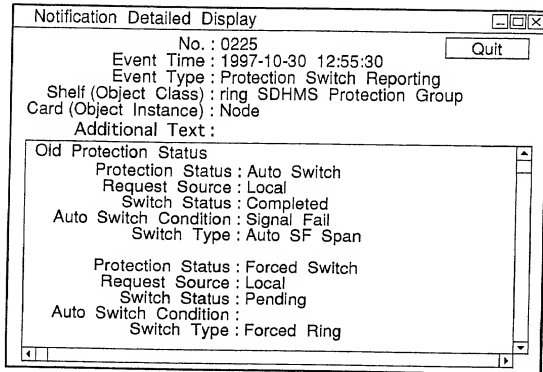
Quit

Value #####
(Old) : Not Maintenance
(New) : Maintenance

FIG. 17

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↓ Scroll (Vertically)

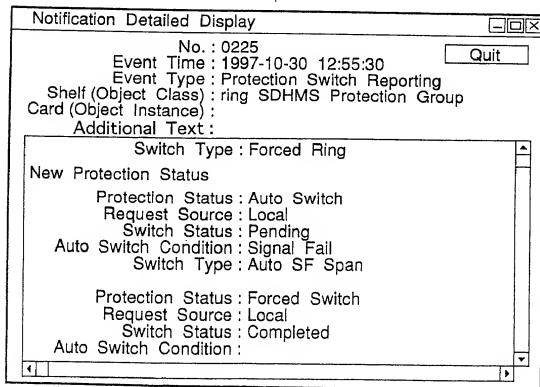


FIG. 18

0982908-102201

Alarm Severity Control

Node / Category / Probable Cause :

Assignment Profile	Perceived Severity

Perceived Severity

☐ Critical ☐ Major ☐ Minor ☐ Warning ☐ Non-Alerted

Console

Set Quit

FIG. 19

Node/Category/Probable Cause Selection

Node :

Category

Category: LS Channel:

Operation Mode:

Probable Cause

FIG. 20

☐ Node Selection

Node

☐ #0 ☐ #1 ☐ #2 ☐ #3
☐ #4 ☐ #5 ☐ #6 ☐ #7
☐ #8 ☐ #9 ☐ #10 ☐ #11
☐ #12 ☐ #13 ☐ #14 ☐ #15

FIG. 21

09382908 102201 8063860

Maintenance Control

Node :

Mode

☐ Maintenance ☐ Not Maintenance

Set Quit

FIG. 22

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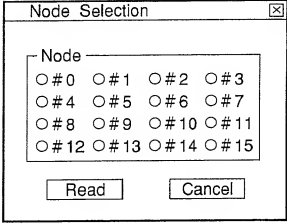
Maintenance Signal Insertion Control

Node :

Channel	SRV	PRT	P/T
HS W	[]	[]	
HS E	[]	[]	
LS 1	[]	[]	[]
LS 2	[]	[]	[]
LS 3	[]	[]	[]
LS 4	[]	[]	[]
LS 5	[]	[]	[]
LS 6	[]	[]	[]
LS 7	[]	[]	[]
LS 8	[]	[]	[]
LS 9	[]	[]	[]
LS10	[]	[]	[]
LS11	[]	[]	[]
LS12	[]	[]	[]
LS13	[]	[]	[]
LS14	[]	[]	[]

Modify Quit

FIG. 23



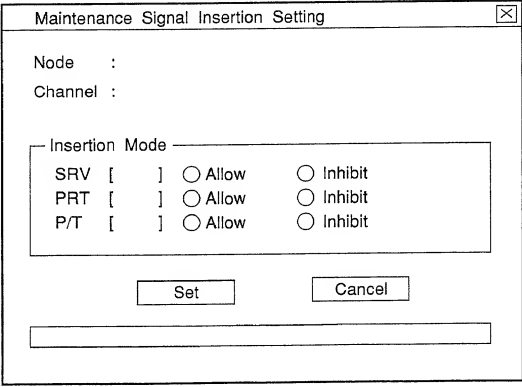
Node Selection

Node

<input type="radio"/> #0	<input type="radio"/> #1	<input type="radio"/> #2	<input type="radio"/> #3
<input type="radio"/> #4	<input type="radio"/> #5	<input type="radio"/> #6	<input type="radio"/> #7
<input type="radio"/> #8	<input type="radio"/> #9	<input type="radio"/> #10	<input type="radio"/> #11
<input type="radio"/> #12	<input type="radio"/> #13	<input type="radio"/> #14	<input type="radio"/> #15

Read Cancel

FIG. 24



Maintenance Signal Insertion Setting

Node :

Channel :

Insertion Mode

SRV []	<input type="radio"/> Allow	<input type="radio"/> Inhibit
PRT []	<input type="radio"/> Allow	<input type="radio"/> Inhibit
P/T []	<input type="radio"/> Allow	<input type="radio"/> Inhibit

Set Cancel

FIG. 25

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SD Threshold Control

Node :

Channel	SRV	PRT	P/T
HS W	[]	[]	
HS E	[]	[]	
LS 1	[]	[]	[]
LS 2	[]	[]	[]
LS 3	[]	[]	[]
LS 4	[]	[]	[]
LS 5	[]	[]	[]
LS 6	[]	[]	[]
LS 7	[]	[]	[]
LS 8	[]	[]	[]
LS 9	[]	[]	[]
LS10	[]	[]	[]
LS11	[]	[]	[]
LS12	[]	[]	[]
LS13	[]	[]	[]
LS14	[]	[]	[]

Modify Quit

FIG. 26

SD Threshold Setting

Node :

Channel :

SD Threshold

SRV	[]	<input type="radio"/> -5	<input type="radio"/> -6	<input type="radio"/> -7	<input type="radio"/> -8	<input type="radio"/> -9
PRT	[]	<input type="radio"/> -5	<input type="radio"/> -6	<input type="radio"/> -7	<input type="radio"/> -8	<input type="radio"/> -9
P/T	[]	<input type="radio"/> -5	<input type="radio"/> -6	<input type="radio"/> -8	<input type="radio"/> -8	<input type="radio"/> -9

Set Cancel

FIG. 27

Node Log Control

	Max Log Size	Number of Records
Alarm	[] [] Kbyte(s)	[] Record(s)
Object Cre / Del	[] [] Kbyte(s)	[] Record(s)
State Change	[] [] Kbyte(s)	[] Record(s)
Protection	[] [] Kbyte(s)	[] Record(s)
Security Alarm	[] [] Kbyte(s)	[] Record(s)

Read Set Quit

FIG. 28

CAUTION

All log records will be deleted !

Click 'OK' to excute,
Click 'Cancel' to cancel this operation.

OK Cancel

FIG. 29

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Node Record Retrieval

Node Record Retrieval Type :

Condition ☐ All ☐ Time

Event Time(Start/End)

(Start)
Year: Month: Day: Hour: Minute: Second:

(End)
Year: Month: Day: Hour: Minute: Second:

FIG. 30

Alarm Record Retrieval Report

Mark 1 No. : Condition:

Mark 2 No. : Records :

FIG. 31

00982008.102201

Protection Record Retrieval Report

Mark 1

Clr

No. :

Condition:

Mark 2

Clr

No. :

Records :

Quit

Protection Status

(Protection Status) (Request Source) (Switch Status) (Auto Switch Con

(Old): No Request

(New): Auto Switch

(Protection Status) (Request Source) (Switch Status) (Auto Switch Con

(Old): Lockout

(New): No Request

Local

Remote

Pending

Completed

Signal Fail

Signal Fail

FIG. 32

Terminal Access Record Retrieval

Condition ☒ All ☐ Time

Time(Start/End)

(Start)
 Year: Month: Day: Hour: Minute: Second:

(End)
 Year: Month: Day: Hour: Minute: Second:

FIG. 33

Ferminal Access Record Retrieval Report

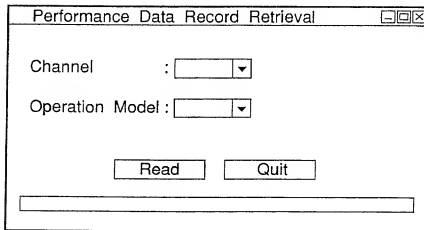
Mark 1 Clr No. : Condition: Quit

Mark 2 Clr No. : Records :

NO.	Time/Date	Login Name	Function	Destinations
-----	-----------	------------	----------	--------------

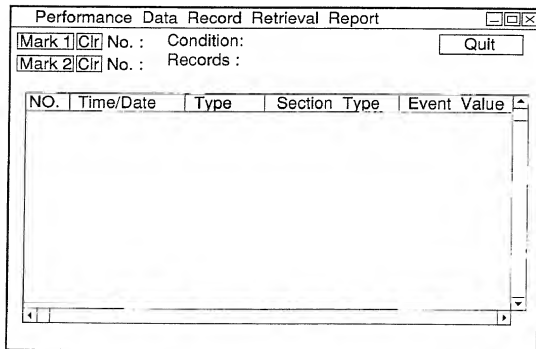
FIG. 34

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A dialog box titled "Performance Data Record Retrieval" with standard window controls (minimize, maximize, close). It contains two labels with corresponding dropdown menus: "Channel" and "Operation Model". Below these are two buttons, "Read" and "Quit", and a horizontal progress bar at the bottom.

FIG. 35



A window titled "Performance Data Record Retrieval Report" with standard window controls. It features two input fields: "Mark 1" with a "Clr" button and "No. : Condition:", and "Mark 2" with a "Clr" button and "No. : Records:". A "Quit" button is located to the right. Below is a table with the following headers: NO., Time/Date, Type, Section Type, Event Value. The table body is empty, and a scrollbar is visible on the right side.

NO.	Time/Date	Type	Section Type	Event Value
-----	-----------	------	--------------	-------------

FIG. 36

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Quality of Service Alarm Control

Node/Channel/Section :

	Notify	Perceived Severity	Threshold	
TCCV []	[]	[]	[]	(Max:)
BBE []	[]	[]	[]	(Max:)
ES []	[]	[]	[]	(Max:)
SES []	[]	[]	[]	(Max:)
UAS []	[]	[]	[]	(Max:)
OFS []	[]	[]	[]	(Max:)

Set Quit

FIG. 37

Node/Channel/Section Selection

Node :

Channel : [] Operation Mode: []

Monitoring Section

☐ R-Section ☐ M-Section

Read Channel

FIG. 38

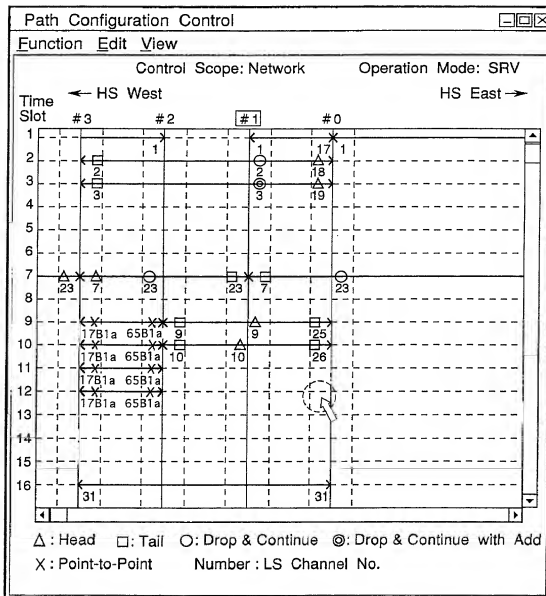


FIG. 39

Read Path

Scope Mode

☐ Network(All Nodes) ☐ Local Node

Operation Mode: ▼

Console

Read Cancel

FIG. 40

Node Information

Node: Time Slot: Direction:

Path Type ▼ Create

Concatenation Type ☐ AU-4 ☐ AU-4-4c ☐ AU-4-16c Modify

LS Channel ▼ Delete

Cancel

FIG. 41

FIG. 42

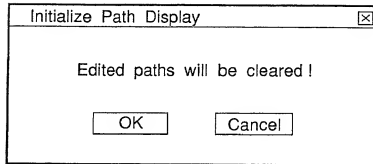
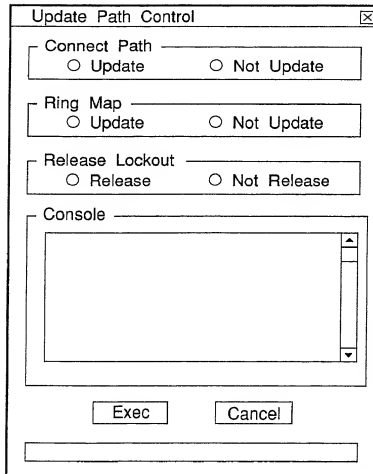


FIG. 43



Invalid Path ✕

Invalid Path

*1	TS 2	East	·	TS 2	West	Extra	<div style="border: 1px solid black; width: 15px; height: 15px; margin: 0 auto;"></div>
*1	TS 2	East	·	ch 2	Extra		
*2	TS 2	West	·	TS 2	East	Extra	
*3	TS 3	East	·	TS 3	West	Extra	
*3	TS 3	East	·	ch 3	Extra		

Release Lockout

☐ Release
☐ Not Release

Console

Set

Cancel

FIG. 44

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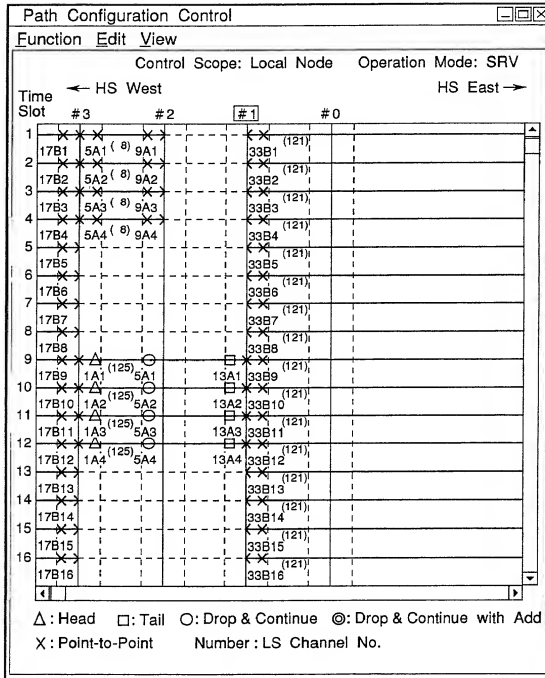


FIG. 45

Ring Map Administrative State Control

Node Condition :

Node	Status
# 1	Locked

Administrative State

☐ Locked ☐ Unlocked

Console

Set Quit

FIG. 46

Node Condition

Condition

☐ Select Node ☐ Network (All Nodes)

Node :

Read Cancel

FIG. 47

LS Groupe Type Control

Node/LS Shelf : #0

LS No. Group Type

--

Edit Type

☐ Create ☐ Delete

Group Type: ▼

Console

--

Set Quit

FIG. 48

Node/LS Shelf Selection

Node : #0

LS Shelf : ▼

Read Cancel

FIG. 49

APS Control

Node/Channel :

Wait-to-Restore Time : [] [] [] ☐ Minute ☐ Hour ☐ Day ☐ Infinite

Wait-to-Response Time : [] [] [] ☒ X10msec

Request Guard Time : [] [] [] ☐ X10msec ☐ Sec

Console

Set Quit

FIG. 50

Node/Channel Selection

Node : # 1

Channel : []

Read Cancel

FIG. 51

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Protection Switching Control

Node / Section Selection :

Object 1

Service Traffic:
Number of Protection Status:
Protection Status:
Request Source:
Switch Status:
Auto Switch Condition:
Switch Type:

Object 2

Service Traffic:
Number of Protection Status:
Protection Status:
Request Source:
Switch Status:
Auto Switch Condition:
Switch Type:

Control Selection ☐ Object 1 ☐ Object 2

Switch Type Control

Action ☐ Invoke ☐ Release

Console

Exec Quit

FIG. 52

Node/Section Selection

Node : _____

Section _____

☐ HS ☐ Equipment ☐ LS

LS Channel _____

Read Cancel

FIG. 53

APS Exerciser Control

Node/Channel : _____

Exerciser Type _____

☐ Span(Line) ☐ Ring

Exec Quit

FIG. 54

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Timing Mode Control

Node :

System Timing Mode
[]
☐ External
☐ Free Running
☐ Line Timing (West Loop)
☐ Line Timing (East Loop)

Select Clock
[]
☐ # 0 ☐ # 1

Select Card
[] ☐ CKGEN (0) ☐ CKGEN (1)

Synchronization Mode
[] ☐ Auto ☐ Lock

S1 Byte (West)
Receiving :
Transmitting : []
[]

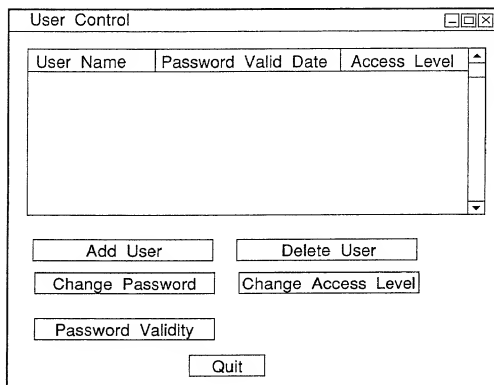
S1 Byte (East)
Receiving :
Transmitting : []
[]

Console
[]
[]
[]
[]

Set Quit

FIG. 55

00000000-00000000



The 'User Control' window features a title bar with standard window controls. Below the title bar is a table with four columns: 'User Name', 'Password', 'Valid Date', and 'Access Level'. The table body is empty. To the right of the table is a vertical scrollbar. Below the table are five buttons: 'Add User', 'Delete User', 'Change Password', 'Change Access Level', and 'Password Validity'. At the bottom center is a 'Quit' button.

User Name	Password	Valid Date	Access Level
-----------	----------	------------	--------------

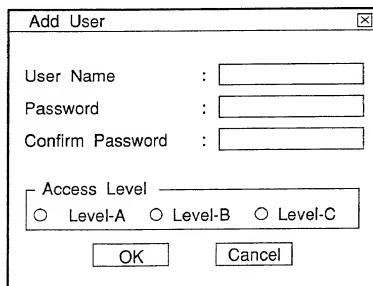
Add User Delete User

Change Password Change Access Level

Password Validity

Quit

FIG. 56



The 'Add User' window has a title bar with a close button. It contains three input fields for 'User Name', 'Password', and 'Confirm Password'. Below these is a section for 'Access Level' with three radio buttons labeled 'Level-A', 'Level-B', and 'Level-C'. At the bottom are 'OK' and 'Cancel' buttons.

Add User

User Name :

Password :

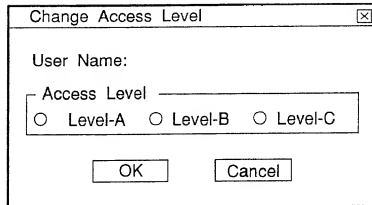
Confirm Password :

Access Level

☐ Level-A ☐ Level-B ☐ Level-C

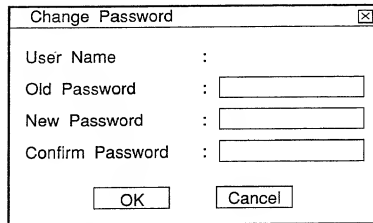
OK Cancel

FIG. 57



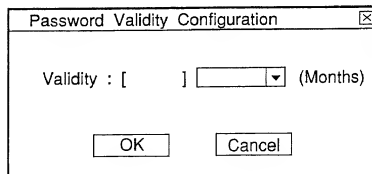
A dialog box titled "Change Access Level" with a close button (X) in the top right corner. It contains a label "User Name:" followed by a text input field. Below this is a label "Access Level" followed by a horizontal line and three radio buttons labeled "Level-A", "Level-B", and "Level-C". At the bottom are "OK" and "Cancel" buttons.

FIG. 58



A dialog box titled "Change Password" with a close button (X) in the top right corner. It contains four labels with corresponding input fields: "User Name" followed by a colon and a text field; "Old Password" followed by a colon and a text field; "New Password" followed by a colon and a text field; and "Confirm Password" followed by a colon and a text field. At the bottom are "OK" and "Cancel" buttons.

FIG. 59



A dialog box titled "Password Validity Configuration" with a close button (X) in the top right corner. It contains a label "Validity : []" followed by a dropdown menu and the text "(Months)". At the bottom are "OK" and "Cancel" buttons.

FIG. 60

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Machine-Machine Control

Node :

Manager Name	Access Level

Console

Add Change Delete Quit

FIG. 61

Add Manager

Manager Name:

Access Level

☐ Level-1 ☐ Level-2 ☐ Level-3

Console

Set Cancel

FIG. 62

Change Manager Level

Manager Name: _____

Access Level _____

☐ Level-1 ☐ Level-2 ☐ Level-3

Console _____

Set Cancel

FIG. 63

Auto Logout Time Setting

Time : [] _____ (Hours)

OK Cancel

FIG. 64

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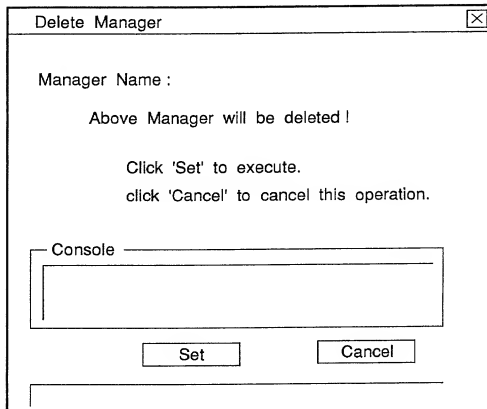


FIG. 65

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System Time Setting

Node :
System Time :
Date/Time
Year: [] Month: [] Day: []
Hour: [] Minute: [] Second: []
Set Quit

FIG. 66

Ring APS Control

Condition
☐ Number of Ring Node [] []
☐ Self Ring Node ID [] []
☐ Number of Service Time Slot [] []
☐ Number of Extra Time Slot [] []
☐ Ring Topology Map Ring Topology Map
Read Set Quit

FIG. 67

Ring Topology Map Configuration

Node		Ring Node ID		Self Node ID
A	[]	<input type="text"/>	[]	<input type="text"/>
B	[]	<input type="text"/>	[]	<input type="text"/>
C	[]	<input type="text"/>	[]	<input type="text"/>
D	[]	<input type="text"/>	[]	<input type="text"/>
E	[]	<input type="text"/>	[]	<input type="text"/>
F	[]	<input type="text"/>	[]	<input type="text"/>
G	[]	<input type="text"/>	[]	<input type="text"/>
H	[]	<input type="text"/>	[]	<input type="text"/>
I	[]	<input type="text"/>	[]	<input type="text"/>
J	[]	<input type="text"/>	[]	<input type="text"/>
K	[]	<input type="text"/>	[]	<input type="text"/>
L	[]	<input type="text"/>	[]	<input type="text"/>
M	[]	<input type="text"/>	[]	<input type="text"/>
N	[]	<input type="text"/>	[]	<input type="text"/>
O	[]	<input type="text"/>	[]	<input type="text"/>
P	[]	<input type="text"/>	[]	<input type="text"/>

OK Cancel

FIG. 68

FIG. 69FIG. 70

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Card Selection

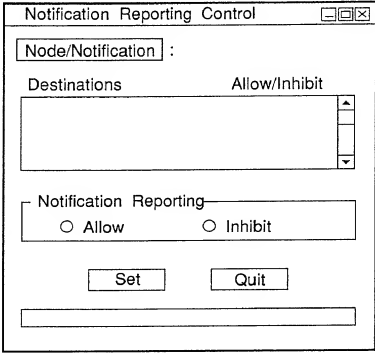
LS Shelf :

- ☐ ESW 1
- ☐ STM-1 SRV 1
- ☐ STM-1 SRV 2
- ☐ STM-1 SRV 3
- ☐ STM-1 SRV 4
- ☐ PSW SRV 1
- ☐ PSW PRT 1
- ☐ ESW 2
- ☐ STM-1 PRT 1
- ☐ STM-1 PRT 2
- ☐ STM-1 PRT 3
- ☐ STM-1 PRT 4
- ☐ ESW 3
- ☐ STM-1 SRV 5
- ☐ STM-1 SRV 6
- ☐ STM-1 SRV 7
- ☐ STM-1 SRV 8
- ☐ PSW SRV 2
- ☐ PSW PRT 2
- ☐ ESW 4
- ☐ STM-1 PRT 5
- ☐ STM-1 PRT 6
- ☐ STM-1 PRT 7
- ☐ STM-1 PRT 8

OK Cancel

FIG. 71

09982908.102201



Notification Reporting Control

Node/Notification :

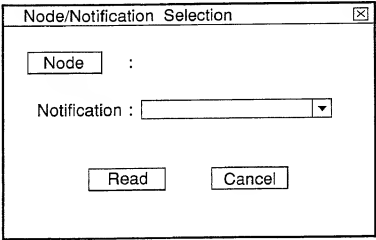
Destinations Allow/Inhibit

Notification Reporting

☐ Allow ☐ Inhibit

Set Quit

FIG. 72



Node/Notification Selection

Node :

Notification :

Read Cancel

FIG. 73

102201-8062860

Display Control

Color

Critical : [☐] Color ☐

Major : [☐] Color ☐

Minor : [☐] Color ☐

Warning : [☐] Color ☐

Clear : [☐] Color ☐

Other Notification : [☐] Color ☐

Maintenance : [☐] Color ☐ Init

Data Type

Order [] ☐ Time Date ☐ Date Time

Type [] ☐ MM/DD/YYYY
☐ DD/MM/YYYY
☐ YYYY-MM-DD
☐ DD-MMM-YYYY

Sorting [] ☐ Latest ☐ Earliest

OK Quit

FIG. 74

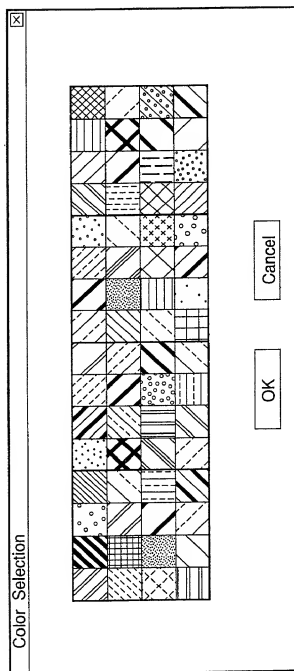


FIG. 75

102201* 80628660

Terminal Configuration

Ring Network Configuration ◀ ▶

Number of Ring Node:

Note: Clockwise direction is always west

◀
▶

Node Configuration

Node	◀ ▶
A:	◀ ▶
B:	◀ ▶
C:	◀ ▶
D:	◀ ▶
E:	◀ ▶
F:	◀ ▶
G:	◀ ▶
H:	◀ ▶

Node	◀ ▶
I:	◀ ▶
J:	◀ ▶
K:	◀ ▶
L:	◀ ▶
M:	◀ ▶
N:	◀ ▶
O:	◀ ▶
P:	◀ ▶

1: MAIN RACK=2 LS Shelves (LS #1-2)

2: 1+ EXTENSION RACK=3 LS Shelves (LS #1-3)

3: 1+ EXTENSION RACK=4 LS Shelves (LS #1-4)

OK

Quit

FIG. 76